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U.S. Department of the Interior • U.S. Geological Survey

# MINERAL INDUSTRY SURVEYS

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## ALUMINUM IN DECEMBER 1997

Domestic primary aluminum production in December was 309,723 metric tons. The average daily production rate was 9,991 tons, about the same level as that of the previous month and that of December 1996. Preliminary total primary production in 1997 was 3,603,362 tons, about 1% higher than production in 1996. The estimated value of production in 1997 was \$6.1 billion.

The monthly average U.S. market price of primary aluminum ingot decreased from 78.08 cents per pound in November to 74.74 cents per pound in December, according to *Platt's Metals Week*. The average price for the year was 77.07 cents per pound, about 6 cents per pound above the 1996 average of 71.35 cents per pound. According to *American Metal Market*, the buying price range for processed aluminum used beverage can (UBC) scrap began the month at 58.5 to 59.5 cents per pound. The price decreased twice during the first half of the month, and by mid-December the buying price range was 55 to 56 cents per pound. The price remained at this level through the end of the month. According to *Resource Recycling's Container Recycling Report*, the monthly average transaction price for aluminum UBC's decreased from 61.9 cents per pound in November to 59.7 cents per pound in December. The average for the year was 60.3 cents per pound, significantly higher than the 1996 average of 54.7 cents per pound.

### Update

Reynolds Metals Co. announced that it would begin preparations to restart 47,000 tons of idle capacity at its Longview, WA, primary aluminum smelter. Production was

expected to begin in the second quarter of 1998, and would bring the plant back to its full capacity of 204,000 tons per year (Reynolds Metals Co., 1998).

The monthly average market price of primary aluminum ingot decreased to 71.92 cents per pound in January. In early January, the *American Metal Market* buying price range for aluminum UBC's decreased to 53 to 54 cents per pound. On January 22, the buying price range increased and returned to the January 1 level of 55 to 56 cents per pound. The price remained at this level through January 27.

### Publication of Interest

The Aluminum Association Inc. has released the fourth edition of its *U.S. Aluminum Industry Plant Directory* (November 1997). The directory provides a comprehensive listing of plants that produce aluminum ingot, aluminum master alloys, and basic semifabricated (mill) products. Aluminum castings are not included. Information on ordering a copy may be obtained by contacting the Association's Publications Department at (301) 645-0756.

### Reference Cited

Reynolds Metals Co., 1998, Reynolds Metals reports fourth-quarter and year-end results: Richmond, VA, Reynolds Metals Co. Press release, January 20. (Accessed February 4, 1998, on the World Wide Web at URL <http://www.rmc.com/corp/comm/pr/pr980120.html>)

TABLE 1  
COMPONENTS OF ALUMINUM SUPPLY 1/

(Thousand metric tons)

Period	Primary production	Secondary recovery 2/			Imports for consumption			Total new supply 3/	Total stocks end of period 4/
		New	Old	Total	Metals and alloys, crude	Plates, sheets, bars, etc.	Total		
1996: 5/	3,577	1,710	1,570	3,290	1,910	498	2,410	9,270	1,860
1996:									
December	305	147	128	276	180	39	219	800	1,860
1997:									
January	305	171	148 r/	318	145	42	188	811	1,830 r/
February	277	160	139	299	147	37	184	760	1,830
March	307	169	150	319	209	48	257	883	1,810
April	295	169	151	320	196	48	244	859	1,810
May	304	174	147	321	198	49	247	872	1,800 r/
June	296	164	145	309	167	47	214	819	1,810 r/
July	305	176	147	323	157	51	208	836	1,840 r/
August	304	174	144	318 r/	152	47	199	821	1,830 r/
September	294	173	142	315	150	47	196	805	1,830 r/
October	307	174 r/	150	324 r/	175	47	222	854 r/	1,830 r/
November	298	162 r/	136 r/	298 r/	146	50	196	792	1,860
December	310	163	136	300	NA	NA	NA	NA	NA
Jan.-Dec.	3,603	2,030	1,740	3,760	NA	NA	NA	NA	NA

r/ Revised. NA Not available.

1/ Data are rounded to three significant digits, except "Primary production"; may not add to totals shown.

2/ Metallic recovery from purchased, tolled, or imported scrap, expanded for full coverage of industry.

3/ Primary production, secondary recovery, and imports for consumption.

4/ Includes scrap; data from Current Industrial Reports, Series M33D, U.S. Department of Commerce, Bureau of the Census.

5/ Includes monthly and annual data.

TABLE 2  
ESTIMATED FULL COVERAGE CONSUMPTION OF AND METALLIC RECOVERY FROM PURCHASED  
NEW AND OLD ALUMINUM SCRAP 1/

(Thousand metric tons)

Period	Secondary smelters		Integrated aluminum companies		Independent mill fabricators		Foundries		Other consumers		Total	
	Con-sump-tion	Metal recovery	Con-sump-tion	Metal recovery	Con-sump-tion	Metal recovery	Con-sump-tion	Metal recovery	Con-sump-tion	Metal recovery	Con-sump-tion	Metal recovery
1996: 2/	1,580	1,210	1,410	1,250	780	720	105	93	11	10	3,880	3,290
1996:												
December	124	100	113	100	72	67	9	8	1	1	318	276
1997:												
January	142	109	126	113	97	90	7	6	1	1	373	318
February	141	108	116	104	88	81	7	6	(3/)	(3/)	352	299
March	142	109	132	116	94	87	7	6	(3/)	(3/)	376	319
April	144	111	129	114	95	88	7	7	1	1	376	320
May	143	110	124	110	100	93	8	7	1	1	376	321
June	143	110	125	111	89	82	7	6	1	1	363	309
July	144	110	129	114	98	91	8	7	1	1	379	323
August	143	110	119	105	101	94	10	9	1	1	374	318 r/
September	144	111	118 r/	105	94	87	14	12	1	1	370	315
October	146	112	123	109	97	89	14	12	1	1	381 r/	324 r/
November	144	110 r/	109	97	89 r/	82 r/	10	8 r/	1	1	352 r/	298 r/
December	144	111	111	99	88	81	9	8	1	1	353	300
Jan.-Dec.	1,720	1,320	1,460	1,300	1,130	1,050	107	94	7	7	4,420	3,760

r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes monthly and annual data.

3/ Less than 1/2 unit.

TABLE 3  
CONSUMPTION OF AND RECOVERY FROM PURCHASED  
NEW AND OLD ALUMINUM SCRAP IN DECEMBER 1997 1/

(Metric tons)

	Consumption		Calculated metallic recovery	
	Tabulated reports	Estimated full coverage	Tabulated reports	Estimated full coverage
Secondary smelters	121,000	144,000	92,900	111,000
Integrated aluminum companies	111,000	111,000	98,600	98,600
Independent mill fabricators	73,200	87,900	67,800	81,300
Foundries	7,900	9,480	6,770	8,120
Other consumers	452	542	452	542
Total	313,000	353,000	267,000	300,000

1/ Data are rounded to three significant digits; may not add to totals shown.

TABLE 4  
PURCHASED AND TOLL-TREATED ALUMINUM-BASE SCRAP AND SWEATED PIG IN  
DECEMBER 1997 1/

(Metric tons)

	Stocks, opening	Net receipts 2/	Melted or consumed	Stocks, closing
New scrap:				
Solids	22,800 r/	85,900	85,400	23,400
Can stock clippings	5,460	21,700	22,600	4,570
Other clippings	7,070 r/	15,200	15,100	7,080
Borings and turnings	5,560 r/	20,300	20,300	5,560
Dross and skimmings	3,020	28,100	28,100	3,020
Total new scrap	43,900 r/	171,000	172,000	43,600
Old scrap:				
Used casting, sheet, and clippings	31,200 r/	59,900	59,900	31,200
Aluminum-copper radiators	1,330 r/	2,040	2,040	1,330
Used cans (shredded, loose, baled)	25,400	73,500	73,900	25,000
Fragmentized shredder (auto shredder)	W	W	W	W
Other	1,040	5,090	5,090	1,040
Total old scrap	59,000 r/	141,000	141,000	58,500
Sweated pig	1,380 r/	647	673	1,350
Total all classes	104,000 r/	312,000	313,000	104,000

r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Other."

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes data on imported aluminum-base scrap.

TABLE 5  
ALUMINUM ALLOYS PRODUCED AT SECONDARY SMELTERS  
IN THE UNITED STATES 1/ 2/

(Metric tons)

	Stocks, opening	Production Dec.	Net shipments Dec.	Stocks, closing	Production Jan.-Dec. 3/	Net shipments Jan.-Dec. 3/
Die cast alloys:						
13% Si, 360, etc. (0.6% Cu, max.)	3,510	6,750	6,750	3,510	74,900	75,500
380 and variations	12,300	40,000	40,000	12,300	479,000	479,000
Sand and permanent mold:						
95/5 Al-Si, 356, etc. (0.6% Cu, max.)	13,100	1,920	1,920	13,100	23,000	23,000
No. 319 and variations	2,960	10,700	10,700	2,960	130,000	130,000
F-132 alloy and variations	1,870 r/	3,590	3,640	1,810	45,000	45,100
Al-Zn alloys	453	225	225	453	2,700	2,700
Al-Si alloys (0.6% to 2.0% Cu)	196	802	802	196	9,620	9,630
Al-Cu alloys (1.5% Si, max.)	60	77	77	60	925	926
Other 4/	2,640	7,160	7,160	2,640	90,100	90,200
Wrought alloys:						
Extrusion billets	5,810 r/	12,300	12,200	5,890	157,000	157,000
Total all alloys	42,900 r/	83,600	83,500	43,000	1,010,000	1,010,000
Less:						
Primary aluminum consumed	XX	4,500	XX	XX	53,100	XX
Primary silicon consumed	XX	19,100	XX	XX	87,400	XX
Other alloying ingredients consumed	XX	423	XX	XX	5,100	XX
Net metallic recovery from aluminum scrap and sweated pig consumed in production of secondary aluminum ingot 5/	XX	59,500	XX	XX	866,000	XX

r/ Revised. XX Not applicable.

1/ Excludes integrated aluminum companies.

2/ Data are rounded to three significant digits; may not add to totals shown.

3/ Includes revised data from previous months.

4/ Includes alloys No. 12, Al-Mg, Al-Si-Cu-Ni, aluminum-base hardeners, variations of these alloys, plus other aluminum alloys.

5/ No allowance made for melt-loss of primary aluminum and alloying ingredients.

TABLE 6  
U.S. IMPORTS FOR CONSUMPTION OF ALUMINUM IN NOVEMBER 1997 1/

(Metric tons)

Country	Metals and alloys, crude		Plates, sheets, bars, etc.		Scrap		Total	
	Nov.	Jan.-Nov.	Nov.	Jan.-Nov.	Nov.	Jan.-Nov.	Nov.	Jan.-Nov.
Argentina	296	12,900	205	1,120	161	3,390	662	17,400
Australia	--	1,250	125	948	--	1,340	125	3,540
Bahrain	--	--	2,090	10,000	--	--	2,090	10,000
Belgium	257	318	231	4,240	2	140	489	4,700
Bosnia and Herzegovina	--	--	--	17	--	--	--	17
Brazil	725	19,400	17	228	72	249	814	19,800
Canada	114,000	1,300,000	29,400	305,000	20,900	233,000	165,000	1,840,000
Croatia	--	--	36	383	--	--	36	383
Czech Republic	--	--	8	74	--	--	8	74
France	26	357	1,180	9,420	445	5,400	1,650	15,200
Germany	26	1,010	4,260	33,300	74	1,400	4,360	35,700
Ghana	--	1,160	--	--	--	1,650	--	2,810
Hungary	--	4	251	2,000	--	--	251	2,010
India	11,900	19,100	2	10	--	--	11,900	19,100
Italy	--	18	295	2,980	--	16	295	3,010
Japan	2	134	1,760	17,100	266	923	2,030	18,200
Korea, Republic of	4	65	29	324	96	1,940	129	2,330
Lithuania	--	17	--	--	--	--	--	17
Mexico	96	1,620	986	12,400	6,880	77,700	7,960	91,700
Netherlands	15	2,350	415	4,600	130	1,390	560	8,340
Norway	66	713	30	1,660	--	--	96	2,370
Russia	10,400	342,000	31	7,540	384	2,990	10,800	353,000
Slovakia	38	422	--	--	--	--	38	422
Slovenia	--	--	353	3,120	--	--	353	3,120
South Africa	--	11,400	531	4,640	20	730	551	16,800
Spain	--	149	1,280	12,700	145	814	1,420	13,600
Sweden	--	4,070	243	3,180	357	1,480	600	8,740
Switzerland	--	(2/)	117	2,410	--	--	117	2,410
Tajikistan	--	4,030	--	--	--	--	--	4,030
Ukraine	100	3,970	--	19	42	572	142	4,560
United Arab Emirates	--	--	--	--	159	2,060	159	2,060
United Kingdom	35	10,500	1,600	17,200	1,020	9,600	2,650	37,300
Venezuela	7,980	102,000	2,350	27,500	1,300	15,400	11,600	145,000
Other	95	612 r/	2,010	28,400	4,930	52,900	7,030	81,900
Total	146,000	1,840,000	49,800	513,000	37,400	415,000	233,000	2,770,000

r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Less than 1/2 unit.

Source: Bureau of the Census.

TABLE 7  
U.S. EXPORTS OF ALUMINUM IN NOVEMBER 1997 1/

(Metric tons)

Country or territory	Metals and alloys, crude		Plates, sheets, bars, etc.		Scrap		Total	
	Nov.	Jan.-Nov.	Nov.	Jan.-Nov.	Nov.	Jan.-Nov.	Nov.	Jan.-Nov.
Australia	36	328	158	2,310	--	16	194	2,660
Belgium	(2/)	8	3,210	13,700	37	173	3,240	13,800
Brazil	21	89	12,000	66,900	--	13	12,000	67,000
Canada	15,100	141,000	29,800	370,000	7,120	80,100	52,000	591,000
China	--	933	2,300	38,700	3,520	36,700	5,820	76,400
Czech Republic	--	--	3	26	--	--	3	26
Dominican Republic	--	1	3	1,910	--	54	3	1,960
Estonia	--	3	--	9	17	17	17	30
France	53	252	629	5,260	--	8	682	5,520
Georgia	--	--	--	3	--	--	--	3
Germany	52	503	628	8,430	32	375	712	9,300
Hong Kong	242	4,020	2,580	19,700	2,930	28,000	5,740	51,700
India	--	3	9	127	74	294	83	424
Israel	6	57	130	898	--	9	137	965
Italy	6	57	485	2,880	1	20	492	2,950
Japan	10,100	88,800	3,650	33,200	2,030	33,400	15,800	155,000
Korea, Republic of	931	13,600	2,850	25,600	4,050	30,500	7,840	69,700
Malaysia	(2/)	103	627	5,300	--	1,670	628	7,070
Mexico	4,810	55,300	8,120	93,200	2,970	30,100	15,900	179,000
Moldova	65	65	--	--	--	--	65	65
Netherlands	3	83	197	1,370	24	67	224	1,520
Russia	--	18	--	38	--	5	--	61
Saudi Arabia	--	21	612	17,800	--	--	612	17,900
Singapore	5	190	325	2,980	24	93	354	3,270
Slovenia	--	--	1	1	--	--	1	1
Spain	17	24	76	2,040	--	78	94	2,140
Sweden	7	35	15	144	--	2	22	181
Taiwan	721	8,750	1,900	12,600	4,770	58,200	7,400	79,600
Thailand	59	2,010	1,840	7,820	--	1,060	1,900	10,900
Turkmenistan	--	(2/)	--	--	--	--	--	(2/)
Ukraine	--	--	--	8	--	--	--	8
United Kingdom	270	1,370	1,730	13,600	3	4,740	2,010	19,700
Venezuela	--	95	1,530	8,640	24	364	1,550	9,100
Other	546	4,090	5,780	59,600	181	3,240	6,500	66,900
Total	33,000	322,000	81,100	815,000	27,800	309,000	142,000	1,450,000

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Less than 1/2 unit.

Source: Bureau of the Census.